

# EXHIBIT B



## **STUDY AREA**

The study area includes the proposed right of way associated with the West Waukesha Bypass route between the STH 59/CTH X intersection and IH-94. The specific route is located in U.S. Public Land Survey Sections 5, 6, 7, 8, and 17, Township 6 North, Range 19 East; and Sections 29, 30, 31, and 32, Township 7 North, Range 19 East, City and Town of Waukesha, and City of Pewaukee, Waukesha County Wisconsin.

## **METHODS**

All wetland boundary determinations were based upon the criteria and methodologies set forth in the 1987 *Corps of Engineers Wetlands Delineation Manual* ; the October 2009 *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*; and the Wisconsin Department of Administration Coastal Management Program's 1995 *Basic Guide to Wisconsin's Wetlands and their Boundaries*. The specific dates of the wetland boundary determinations are described in the cover letter to this report.

The wetland boundary determinations also incorporated use of the Commission's 2010 large-scale Orthophotography, the 2005 Wisconsin Wetland Inventory, Waukesha Counties large-scale 2005 topographic mapping, a review of the Farm Service Agency (FSA) aerial photography slides for those lands currently under agricultural uses, and the Natural Resource Conservation Service's (NRCS) soil survey. In addition, climate data from the National Weather Service and the United States Geological Survey (USGS) were considered in determining ambient hydrology conditions on each of the sample sites.

It should be noted that those farmed (Atypical) wetland boundaries identified on November 15 and 29, 2011, were conducted outside the growing season. This was due to the fact that the crops were not removed from these lands until mid-November. Those wetland boundaries will be confirmed – and adjusted if necessary - right after the start of the 2012 growing season.

The wetland boundary was identified in the field by flagged stakes. Each stake was surveyed by a Registered Land Surveyor from Kapur and Associates, Inc. Due to the land owners request; those stakes located on active agricultural lands were removed at the completion of the survey.

## **RESULTS**

The results of the wetland delineation are set forth on the large scale Orthophotography attached to Exhibits A and B. A total of 63 sample sites were identified in and adjacent to the proposed Bypass right of way. The data sheets attached to Exhibit B describes the findings at each sample point. The Orthophotography attached to Exhibit B also shows the specific location of the plant community areas and corresponding sample sites.





# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/25/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 1  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex  
 Slope (%): 12-20% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Hochheim loam (HmD2) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)					
1. <u>Quercus macrocarpa</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)	
2. <u>Acer negundo</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>		
3. <u>Carya ovata</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>		
4. <u>Prunus serotina</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>		
5. <u>Rhamnus cathartica</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>113</u>	= Total Cover		<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)					
1. <u>Zanthoxylum americanum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>NI</u>		
2. <u>Rhamnus cathartica</u>	<u>6</u>	<input type="checkbox"/>	<u>FACU</u>		
3. <u>Carya ovata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>		
4. <u>Lonicera X bella</u>	<u>2</u>	<input type="checkbox"/>	<u>NI</u>		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	_____	<input type="checkbox"/>	_____		
	<u>33</u>	= Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)					
1. <u>Rhamnus cathartica</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		
2. <u>Lonicera X bella</u>	<u>12</u>	<input checked="" type="checkbox"/>	<u>NI</u>		
3. <u>Parthenocissus quinquefolia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		
4. <u>Vitis riparia</u>	<u>6</u>	<input type="checkbox"/>	<u>FACW</u>		
5. <u>Circaea lutetiana</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>		
6. <u>Geum canadense</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>		
7. <u>Solidago altissima</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height	
8. <u>Aster lateriflorus</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>		
9. _____	_____	<input type="checkbox"/>	_____		
10. _____	_____	<input type="checkbox"/>	_____		
11. _____	_____	<input type="checkbox"/>	_____		
12. _____	_____	<input type="checkbox"/>	_____		
	<u>65</u>	= Total Cover			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)					
1. <u>Vitis riparia</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	<u>3</u>	= Total Cover			

Remarks: (include photo number here or on a separate sheet.) Hardwoods. Photo 1.

## SOIL

Sampling Point: 1

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/25/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 2  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): floodplain Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Wet Alluvial Land (Ww) Pd NWI classification: S3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water marks (B1) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11.5</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Sample site is located within the Pebble Brook floodway.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Salix nigra</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>33</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Cornus amomum</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Rhamnus cathartica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 2.				





# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/04/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 3

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SE 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): hillslope

Local relief (concave, convex, none): convex

Slope (%): 6-12%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Hochheim loam (HmC2) Wd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 3

	Absolute % Cover	Dominant Species?	Indicator Status		
<u>Tree Stratum</u> (Plot size: <u>30'</u> radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
1. _____	_____	<input type="checkbox"/>	_____		
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30'</u> radius)				<b>Prevalence Index worksheet:</b>  Total % Cover of:      Multiply by: OBL species      _____ x 1 = _____ FACW species      _____ x 2 = _____ FAC species      _____ x 3 = _____ FACU species      _____ x 4 = _____ UPL species      _____ x 5 = _____ Column Totals:      _____ (A)      _____ (B) Prevalence Index = B/A = _____	
1. _____	_____	<input type="checkbox"/>	_____		
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover			
<u>Herb Stratum</u> (Plot size: <u>5'</u> radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. <u>Bromus inermis</u>	<u>67</u>	<input checked="" type="checkbox"/>	<u>NI</u>		
2. <u>Centaurea maculosa</u>	<u>25</u>	<input type="checkbox"/>	<u>NI</u>		
3. <u>Rhus radicans</u>	<u>20</u>	<input type="checkbox"/>	<u>FAC</u>		
4. <u>Daucus carota</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>		
5. <u>Asclepias syriaca</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>		
6. <u>Echinocystis lobata</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
7. <u>Agropyron repens</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>		
8. <u>Convolvulus arvensis</u>	<u>1</u>	<input type="checkbox"/>	<u>NI</u>		
9. _____	_____	<input type="checkbox"/>	_____		
10. _____	_____	<input type="checkbox"/>	_____		
11. _____	_____	<input type="checkbox"/>	_____		
12. _____	_____	<input type="checkbox"/>	_____		
	<u>133</u>	= Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> radius)					<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. _____	_____	<input type="checkbox"/>	_____		
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover			
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Remarks: (include photo number here or on a separate sheet.) Old field. Photo 3.					



Sampling Point: 3

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☐ No ☒

Remarks: Upland soils.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 4  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Brookston silt loam (BsA) Pd NWI classification: E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 1</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>18</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>8</u>	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 4

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: 5' radius)				
1. <u>Phalaris arundinacea</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Polygonum pensylvanicum</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>93</u>	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
Woody Vine Stratum (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Disturbed fresh (wet) meadow. Photo 4.				



Sampling Point: 4

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

## Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☒ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/25/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 5

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NE 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): hillslope

Local relief (concave, convex, none): convex

Slope (%): 12-20%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Hochheim loam (HmD2) Wd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation, Soil, or Hydrology naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, optional Wetland Site ID: _____	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 5

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Prunus serotina</u>	33	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>Juglans nigra</u>	10	<input type="checkbox"/>	<u>NI</u>
3. <u>Rhamnus cathartica</u>	10	<input type="checkbox"/>	<u>FACU</u>
4. <u>Acer negundo</u>	5	<input type="checkbox"/>	<u>FACW</u>
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	58	= Total Cover	

  

Sapling/Shrub Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rhamnus cathartica</u>	67	<input checked="" type="checkbox"/>	<u>FACU</u>
2. <u>Zanthoxylum americanum</u>	50	<input checked="" type="checkbox"/>	<u>NI</u>
3. <u>Lonicera X bella</u>	2	<input type="checkbox"/>	<u>NI</u>
4. _____	_____	<input type="checkbox"/>	_____
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	119	= Total Cover	

  

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa pratensis</u>	80	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Solidago altissima</u>	25	<input type="checkbox"/>	<u>FACU</u>
3. <u>Monarda fistulosa</u>	20	<input type="checkbox"/>	<u>FACU</u>
4. <u>Linaria vulgaris</u>	5	<input type="checkbox"/>	<u>NI</u>
5. <u>Parthenocissus quinquefolia</u>	5	<input type="checkbox"/>	<u>FACU</u>
6. <u>Zanthoxylum americanum</u>	5	<input type="checkbox"/>	<u>NI</u>
7. <u>Daucus carota</u>	3	<input type="checkbox"/>	<u>NI</u>
8. <u>Geum canadense</u>	3	<input type="checkbox"/>	<u>FAC</u>
9. <u>Rhamnus cathartica</u>	3	<input type="checkbox"/>	<u>FACU</u>
10. <u>Aster lateriflorus</u>	2	<input type="checkbox"/>	<u>FACW</u>
11. <u>Vitis riparia</u>	2	<input type="checkbox"/>	<u>FACW</u>
12. <u>Bromus inermis</u>	1	<input type="checkbox"/>	<u>NI</u>
	155*	= Total Cover	

  

Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	<input type="checkbox"/>	_____
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
	0	= Total Cover	

  

Remarks: (include photo number here or on a separate sheet.) \*Other NON-dominant herbs include: Medicago lupulina (1%) FAC. Shrub thicket with scattered hardwoods. Photo 5

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____
Prevalence Index = B/A = _____	

**Hydrophytic Vegetation Indicators:**

- ☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test is >50%  
☐ Prevalence Index is ≥3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic**
**Vegetation**

Present?

 Yes ☐

 No ☒



Sampling Point: 5

Northcentral and Northeast Region – Interim Version

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/25/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 6  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Brookston silt loam (BsA) Pd NWI classification: T3/S3K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 4</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: Seasonal groundwater discharge area. Possible old fen mound.		



**VEGETATION** – Use scientific names of plants.

Sampling Point: 6

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: 30' radius)																				
1. <u>Quercus macrocarpa</u>	50	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>88</u> (A/B)																
2. <u>Acer negundo</u>	25	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Juglans nigra</u>	25	<input checked="" type="checkbox"/>	<u>NI</u>																	
4. <u>Prunus serotina</u>	10	<input type="checkbox"/>	<u>FACU</u>																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>110</u>	= Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)																				
1. <u>Acer negundo</u>	15	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: left;">Multiply by:</td> </tr> <tr> <td>OBL species _____ x 1 = _____</td> <td></td> </tr> <tr> <td>FACW species _____ x 2 = _____</td> <td></td> </tr> <tr> <td>FAC species _____ x 3 = _____</td> <td></td> </tr> <tr> <td>FACU species _____ x 4 = _____</td> <td></td> </tr> <tr> <td>UPL species _____ x 5 = _____</td> <td></td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____ x 1 = _____		FACW species _____ x 2 = _____		FAC species _____ x 3 = _____		FACU species _____ x 4 = _____		UPL species _____ x 5 = _____		Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____ x 1 = _____																				
FACW species _____ x 2 = _____																				
FAC species _____ x 3 = _____																				
FACU species _____ x 4 = _____																				
UPL species _____ x 5 = _____																				
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
2. <u>Rhamnus frangula</u>	8	<input checked="" type="checkbox"/>	<u>FAC</u>																	
3. <u>Lonicera X bella</u>	5	<input type="checkbox"/>	<u>NI</u>																	
4. <u>Syringia vulgaris</u>	5	<input type="checkbox"/>	<u>NI</u>																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>33</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot size: 5' radius)																				
1. <u>Impatiens capensis</u>	50	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Phalaris arundinacea</u>	33	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Geum aleppicum</u>	10	<input type="checkbox"/>	<u>FAC</u>																	
4. <u>Rubus occidentalis</u>	10	<input type="checkbox"/>	<u>NI</u>																	
5. <u>Verbena urticifolia</u>	2	<input type="checkbox"/>	<u>FAC</u>																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
12. _____	_____	<input type="checkbox"/>	_____																	
	<u>105</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)																				
1. <u>Vitis riparia</u>	5	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>5</u>	= Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
Remarks: (include photo number here or on a separate sheet.) Lowland hardwoods. Photo 6.																				

## SOIL

Sampling Point: 6

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LLR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/25/2011  
Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 7  
Investigator(s): Donald M. Reed, Ph.D., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: none  
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation due to regular mowing.	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: 7

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>Quercus macrocarpa</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)														
2. <u>Prunus serotina</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. _____	_____	<input type="checkbox"/>	_____															
4. _____	_____	<input type="checkbox"/>	_____															
5. _____	_____	<input type="checkbox"/>	_____															
6. _____	_____	<input type="checkbox"/>	_____															
7. _____	_____	<input type="checkbox"/>	_____															
<u>95</u>		= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: right;">Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td style="text-align: right;"><u>0</u> x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td style="text-align: right;"><u>2</u> x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>163</u></td> <td style="text-align: right;"><u>489</u> x 3 = <u>489</u></td> </tr> <tr> <td>FACU species <u>51</u></td> <td style="text-align: right;"><u>204</u> x 4 = <u>204</u></td> </tr> <tr> <td>UPL species <u>2</u></td> <td style="text-align: right;"><u>10</u> x 5 = <u>10</u></td> </tr> <tr> <td>Column Totals: <u>217</u></td> <td style="text-align: right;">(A) <u>705</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.2</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	<u>0</u> x 1 = <u>0</u>	FACW species <u>1</u>	<u>2</u> x 2 = <u>2</u>	FAC species <u>163</u>	<u>489</u> x 3 = <u>489</u>	FACU species <u>51</u>	<u>204</u> x 4 = <u>204</u>	UPL species <u>2</u>	<u>10</u> x 5 = <u>10</u>	Column Totals: <u>217</u>	(A) <u>705</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	<u>0</u> x 1 = <u>0</u>																	
FACW species <u>1</u>	<u>2</u> x 2 = <u>2</u>																	
FAC species <u>163</u>	<u>489</u> x 3 = <u>489</u>																	
FACU species <u>51</u>	<u>204</u> x 4 = <u>204</u>																	
UPL species <u>2</u>	<u>10</u> x 5 = <u>10</u>																	
Column Totals: <u>217</u>	(A) <u>705</u> (B)																	
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>																		
1. <u>Prunus serotina</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
2. <u>Rhamnus cathartica</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>															
3. <u>Rubus occidentalis</u>	<u>2</u>	<input type="checkbox"/>	<u>NI</u>															
4. <u>Sambucus canadensis</u>	<u>1</u>	<input type="checkbox"/>	<u>FACW</u>															
5. _____	_____	<input type="checkbox"/>	_____															
6. _____	_____	<input type="checkbox"/>	_____															
7. _____	_____	<input type="checkbox"/>	_____															
<u>18</u>		= Total Cover																
<b>Herb Stratum (Plot size: 5' radius)</b>																		
1. <u>Poa pratensis</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Viola sororia</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FAC</u>															
3. <u>Digitaria ischaemum</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>															
4. <u>Oxalis stricta</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>															
5. <u>Taraxacum officinale</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>															
6. <u>Trifolium hybridum</u>	<u>3</u>	<input type="checkbox"/>	<u>FAC</u>															
7. <u>Geum canadense</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>															
8. _____	_____	<input type="checkbox"/>	_____															
9. _____	_____	<input type="checkbox"/>	_____															
10. _____	_____	<input type="checkbox"/>	_____															
11. _____	_____	<input type="checkbox"/>	_____															
12. _____	_____	<input type="checkbox"/>	_____															
<u>104</u>		= Total Cover																
<b>Woody Vine Stratum (Plot size: 30' radius)</b>																		
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height														
2. _____	_____	<input type="checkbox"/>	_____															
3. _____	_____	<input type="checkbox"/>	_____															
4. _____	_____	<input type="checkbox"/>	_____															
<u>0</u>		= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														

Remarks: (include photo number here or on a separate sheet.) Mowed lawn, Photo 7.

Sampling Point: 7

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- B) ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Remarks: Low chroma wetland soils present.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 8  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Pistakee silt loam (PrA) Spd NWI classification: S3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 4</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation due to regular mowing.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

Sampling Point: 8

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: 30' radius)				
1. <u>Cornus stolonifera</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Viburnum lentago</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Rhamnus cathartica</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>35</u>	= Total Cover		
Herb Stratum (Plot size: 5' radius)				
1. <u>Trifolium repens</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Poa pratensis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Carex vulpinodea</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
4. <u>Taraxacum officinale</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>100</u>	= Total Cover		
Woody Vine Stratum (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks: (include photo number here or on a separate sheet.) Atypical (mowed) wetland with scattered shrubs. Typha latifolia (OBL) and Scirpus atrovirens (OBL) growing immediately adjacent to sample area. Photo 8.

Sampling Point: 8

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, **MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Remarks:



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/04/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 9

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NW 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 1-3%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Pistakee silt loam (PrA) Spd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, optional Wetland Site ID: _____	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation due to mowing.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>22</u>	
(Includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No indicators of hydrology observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 9

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)																				
1. <u>Pinus sylvestris (planted)</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. <u>Acer negundo</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>11</u>	= Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)																				
1. <u>Pinus sylvestris (planted)</u>	<u>2</u>	<input type="checkbox"/>	<u>NI</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <td style="text-align: center;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>61</u></td> <td>x 3 = <u>183</u></td> </tr> <tr> <td>FACU species <u>37</u></td> <td>x 4 = <u>148</u></td> </tr> <tr> <td>UPL species <u>8</u></td> <td>x 5 = <u>40</u></td> </tr> <tr> <td>Column Totals: <u>111</u></td> <td>(A) <u>381</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.4</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>61</u>	x 3 = <u>183</u>	FACU species <u>37</u>	x 4 = <u>148</u>	UPL species <u>8</u>	x 5 = <u>40</u>	Column Totals: <u>111</u>	(A) <u>381</u> (B)	Prevalence Index = B/A = <u>3.4</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>61</u>	x 3 = <u>183</u>																			
FACU species <u>37</u>	x 4 = <u>148</u>																			
UPL species <u>8</u>	x 5 = <u>40</u>																			
Column Totals: <u>111</u>	(A) <u>381</u> (B)																			
Prevalence Index = B/A = <u>3.4</u>																				
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>2</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)																				
1. <u>Poa pratensis</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Trifolium repens</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Taraxacum officinale</u>	<u>4</u>	<input type="checkbox"/>	<u>FACU</u>																	
4. <u>Plantago major</u>	<u>1</u>	<input type="checkbox"/>	<u>FAC</u>																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
12. _____	_____	<input type="checkbox"/>	_____																	
	<u>98</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)																				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
Remarks: (include photo number here or on a separate sheet.) Mowed lawn. Photo 9.				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																

## SOIL

Sampling Point: 9

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R. MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 10  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Pistakee silt loam (PrA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>Is the Sampled Area within a Wetland?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 4</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation due to mowing. Atypical (mowed) wetland.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>18 and rising</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 10

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: right;">Multiply by:</th> </tr> <tr> <td>OBL species <u>2</u></td> <td style="text-align: right;">x 1 = <u>2</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td style="text-align: right;">x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td style="text-align: right;">x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td style="text-align: right;">x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td style="text-align: right;">x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>102</u></td> <td style="text-align: right;">(A) <u>352</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.45</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>2</u>	x 1 = <u>2</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>102</u>	(A) <u>352</u> (B)	Prevalence Index = B/A = <u>3.45</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>2</u>	x 1 = <u>2</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>50</u>	x 3 = <u>150</u>																			
FACU species <u>50</u>	x 4 = <u>200</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>102</u>	(A) <u>352</u> (B)																			
Prevalence Index = B/A = <u>3.45</u>																				
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
<b>Herb Stratum (Plot size: 5' radius)</b>																				
1. <u>Poa pratensis</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>																	
2. <u>Trifolium repens</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Carex vulpinodea</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
12. _____	_____	<input type="checkbox"/>	_____																	
	<u>102</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	= Total Cover																			
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a managed plant community (regular mowing). Hydric indicators of soils and hydrology present. Atypical (mowed) wetland. Photo 10.																				

**Hydrophytic Vegetation Indicators:**  
☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test is >50%  
☐ Prevalence Index is ≥3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☒ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?**      Yes ☐      No ☒

## SOIL

Sampling Point: 10

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 11  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Pistakee silt loam (PrA) Spd NWI classification: S3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed soils due to siltation and sedimentation that has deposited a 3 inch layer of silt loam in the surface profile.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 11

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	0	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	0	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Angelica atropurpurea</u>	25	<input checked="" type="checkbox"/>	OBL	
2. <u>Leersia oryzoides</u>	25	<input checked="" type="checkbox"/>	OBL	
3. <u>Carex vulpinoidea</u>	20	<input checked="" type="checkbox"/>	OBL	
4. <u>Aster lucidulus</u>	10	<input type="checkbox"/>	FACW	
5. <u>Eupatorium perfoliatum</u>	6	<input type="checkbox"/>	FACW	
6. <u>Impatiens capensis</u>	6	<input type="checkbox"/>	FACW	
7. <u>Verbena hastata</u>	4	<input type="checkbox"/>	FACW	
8. <u>Symplocarpus foetidus</u>	3	<input type="checkbox"/>	OBL	
9. <u>Carex hystericina</u>	2	<input type="checkbox"/>	OBL	
10. <u>Mentha arvensis</u>	2	<input type="checkbox"/>	FACW	
11. <u>Scirpus atrovirens</u>	1	<input type="checkbox"/>	OBL	
12. _____	_____	<input type="checkbox"/>	_____	
	104	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	0	= Total Cover		

**Dominance Test worksheet:**  
 Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)  
  
 Total Number of Dominant Species Across All Strata: 3 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species _____ x 1 = _____	
FACW species _____ x 2 = _____	
FAC species _____ x 3 = _____	
FACU species _____ x 4 = _____	
UPL species _____ x 5 = _____	
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

**Hydrophytic Vegetation Indicators:**  
☐ Rapid Test for Hydrophytic Vegetation  
☒ Dominance Test is >50%  
☐ Prevalence Index is >3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?**      Yes ☒      No ☐

Remarks: (include photo number here or on a separate sheet.) Southern sedge meadow and fresh (wet) meadow. Photo 11.



Sampling Point: 11

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains		<sup>2</sup> Location: PL=Pore Lining, M=Matrix	
<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input checked="" type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LLR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Yes ☒ No ☐

No ☐

Remarks: Surface layer is bisected by a 3 inch layer of silt and sediment materials due to steep slopes from adjacent residential land uses. Otherwise, 8 inches of organic soil occurs in the upper 16 inches.

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/24/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 12  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): seasonal drainage way Local relief (concave, convex, none): slightly concave  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Pistakee silt loam (PrA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 5</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below average precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>17</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 12

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>63</u> (A/B)
1. <u>Acer negundo</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Populus tremuloides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Tilia americana</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Quercus bicolor</u>	<u>12</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Morus alba</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>74</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Rhamnus cathartica</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Viburnum opulus</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. <u>Sambucus canadensis</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Ribes americanum</u>	<u>1</u>	<input type="checkbox"/>	<u>FACW</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>27</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Impatiens capensis</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Urtica dioica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Bidens vulgata</u>	<u>20</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Rubus occidentalis</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
6. <u>Solidago altissima x gigantea</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
7. <u>Ambrosia trifida</u>	<u>3</u>	<input type="checkbox"/>	<u>FAC</u>	
8. <u>Epilobium coloratum</u>	<u>3</u>	<input type="checkbox"/>	<u>OBL</u>	
9. <u>Vitis riparia</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
10. <u>Aster lateriflorus</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
11. <u>Verbena urticifolia</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
12. <u>Carex vulpinoidea</u>	<u>1</u>	<input type="checkbox"/>	<u>OBL</u>	
	<u>115*</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. <u>Vitis riparia</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>6</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) * Other NON-dominant herbs include: Hackelia virginiana (1%) FAC, Polygonum perisicaria (1%) FACW, and Solanum dulcamara (1%) FAC. Fresh (wet) meadow. Photo 12.				
<b>Hydrophytic Vegetation Present?</b>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



Sampling Point: 12

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

## Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☒ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Site is dominated by hydrophytes, has soils saturated to the surface, and a 4 inch muck layer. Therefore, soils are hydric.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/25/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 13

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NW 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 1-3%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Pistakee silt loam (PrA) Spd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation\_\_\_\_, Soil\_\_\_\_, or Hydrology\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation\_\_\_\_, Soil\_\_\_\_, or Hydrology\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>17</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 13

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)																				
1. <u>Quercus macrocarpa</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. <u>Tilia americana</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Acer negundo</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>108</u>	= Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)																				
1. <u>Rubus occidentalis</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>98</u></td> <td>x 3 = <u>294</u></td> </tr> <tr> <td>FACU species <u>84</u></td> <td>x 4 = <u>336</u></td> </tr> <tr> <td>UPL species <u>40</u></td> <td>x 5 = <u>200</u></td> </tr> <tr> <td>Column Totals: <u>257</u></td> <td>(A) <u>900</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.5</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>98</u>	x 3 = <u>294</u>	FACU species <u>84</u>	x 4 = <u>336</u>	UPL species <u>40</u>	x 5 = <u>200</u>	Column Totals: <u>257</u>	(A) <u>900</u> (B)	Prevalence Index = B/A = <u>3.5</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>35</u>	x 2 = <u>70</u>																			
FAC species <u>98</u>	x 3 = <u>294</u>																			
FACU species <u>84</u>	x 4 = <u>336</u>																			
UPL species <u>40</u>	x 5 = <u>200</u>																			
Column Totals: <u>257</u>	(A) <u>900</u> (B)																			
Prevalence Index = B/A = <u>3.5</u>																				
2. <u>Acer negundo</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>																	
3. <u>Prunus serotina</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
4. <u>Rhamnus cathartica</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>																	
5. <u>Rosa multiflora</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>51</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)																				
1. <u>Alliaria officinalis</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Parthenocissus quinquefolia</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>																	
3. <u>Rubus occidentalis</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>																	
4. <u>Arctium minus</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>																	
5. <u>Geum canadense</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>																	
6. <u>Hackelia virginiana</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>																	
7. <u>Polygonum virginianum</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>																	
8. <u>Prunus serotina</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>																	
9. <u>Galium aparine</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>																	
10. <u>Rosa multiflora</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>																	
11. _____	_____	<input type="checkbox"/>	_____																	
12. _____	_____	<input type="checkbox"/>	_____																	
	<u>98</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)																				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height																
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
Remarks: (include photo number here or on a separate sheet.) Hardwood forest. Photo 13.																				



## SOIL

Sampling Point: 13

[illegible]

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 14  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Brookston silt loam (BsA) Pd NWI classification: T3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 7</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks: Water discharges at the surface.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 14

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. <u>Populus tremuloides</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71</u> (A/B)
2. <u>Juglans nigra</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>40</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. <u>Rhamnus cathartica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Viburnum lentago</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. <u>Cornus stolonifera</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Ribes americanum</u>	<u>1</u>	<input type="checkbox"/>	<u>FACW</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>56</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Carex stricta</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Impatiens capensis</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Pilea pumila</u>	<u>15</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Agrostis stolonifera</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Aster lateriflorus</u>	<u>4</u>	<input type="checkbox"/>	<u>FACW</u>	
6. <u>Carex hystericina</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>	
7. <u>Glyceria striata</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>106</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>10</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow with scattered shrubs and hardwoods. Photo 14.				



Sampling Point: 14

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☒ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☒ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>31</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils are saturated at the surface.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/04/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 15

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NW 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): slight hillslope

Local relief (concave, convex, none): slight convex

Slope (%): 0-3%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Brookston silt loam (BsA) Pd

NWI classification: T3/E2K

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation, Soil, or Hydrology naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 15

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Juglans nigra</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>
2. <u>Quercus macrocarpa</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
3. <u>Quercus rubra</u>	<u>15</u>	<input type="checkbox"/>	<u>FACU</u>
4. <u>Populus tremuloides</u>	<u>10</u>	<input type="checkbox"/>	<u>FAC</u>
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	<u>95</u>	= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>			
1. <u>Zanthoxylum americanum</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>
2. <u>Rubus occidentalis</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>
3. <u>Quercus macrocarpa</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>
4. <u>Lonicera X bella</u>	<u>1</u>	<input type="checkbox"/>	<u>NI</u>
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	<u>66</u>	= Total Cover	
<b>Herb Stratum (Plot size: 5' radius)</b>			
1. <u>Geum canadense</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Oxalis stricta</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
3. <u>Carex blanda</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
4. <u>Parthenocisus quinquefolia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
5. <u>Arisaema triphyllum</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>
6. <u>Dipsacus sylvestris</u>	<u>3</u>	<input type="checkbox"/>	<u>NI</u>
7. <u>Rhamnus cathartica</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>
8. <u>Vitis riparia</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>
9. <u>Circaea lutetiana</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>
10. <u>Fragaria virginiana</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>
11. _____	_____	<input type="checkbox"/>	_____
12. _____	_____	<input type="checkbox"/>	_____
	<u>42</u>	= Total Cover	
<b>Woody Vine Stratum (Plot size: 30' radius)</b>			
1. <u>Vitis riparia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
	<u>20</u>	= Total Cover	

**Dominance Test worksheet:**  
 Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)  
  
 Total Number of Dominant Species Across All Strata: 8 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>26</u>	x 2 = <u>52</u>
FAC species <u>52</u>	x 3 = <u>156</u>
FACU species <u>31</u>	x 4 = <u>124</u>
UPL species <u>114</u>	x 5 = <u>570</u>
Column Totals: <u>223</u>	(A) <u>902</u> (B)

 Prevalence Index = B/A = 4.0

**Hydrophytic Vegetation Indicators:**  
☐ Rapid Test for Hydrophytic Vegetation  
☐ Dominance Test is >50%  
☐ Prevalence Index is >3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?** Yes ☐ No ☒

Remarks: (include photo number here or on a separate sheet.) Upland hardwoods. Photo 15.



Sampling Point: 15

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains		<sup>2</sup> Location: PL=Pore Lining, M=Matrix	
<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LLR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			
<input type="checkbox"/> Sandy Redox (S5)			
<input type="checkbox"/> Stripped Matrix (S6)			
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)			

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

Remarks: Upland soils present.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/04/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 16  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 17, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Mundelein silt loam (MzFA) Spd NWI classification: T3K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation\_\_\_\_, Soil\_\_\_\_, or Hydrology\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation\_\_\_\_, Soil\_\_\_\_, or Hydrology ☒ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 10</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Seasonal hydrology.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Seasonal hydrology.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 16

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
		<u>0</u>	= Total Cover	
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Salix bebbiana</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Salix petiolaris</u>	<u>4</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Rhamnus cathartica</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
		<u>10</u>	= Total Cover	
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Agrostis stolonifera</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Helianthus grosseserratus</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Fragaria virginiana</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. <u>Solidago graminifolia</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Solidago riddellii</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>	
6. <u>Cornus stolonifera</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
7. <u>Geum aleppicum</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
8. <u>Juncus dudleyi</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
9. <u>Phalaris arundinacea</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
10. <u>Vitis riparia</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
		<u>117</u>	= Total Cover	
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
		<u>0</u>	= Total Cover	
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 16.				

**Dominance Test worksheet:**  
 Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)  
 Total Number of Dominant Species Across All Strata: 5 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**  
☐ Rapid Test for Hydrophytic Vegetation  
☒ Dominance Test is >50%  
☐ Prevalence Index is >3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?** Yes ☒ No ☐



Sampling Point: 16

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- Options for Problematic Hydric Soils:
- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
  - ☐ Coast Prairie Redox (A16) (LLR K, L, R)
  - ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
  - ☐ Dark Surface (S7) (LRR K, L)
  - ☐ Polyvalue Below Surface (S8) (LRR K, L)
  - ☐ Thin Dark Surface (S9) (LRR K, L)
  - ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
  - ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
  - ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
  - ☐ Red Parent Material (TF2)
  - ☐ Very Shallow Dark Surface (TF12)
  - ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Buried horizon at 16". Soils have been farmed in the past. Original soil layers buried due to siltation and sedimentation from urban development runoff. Wetland soils present based upon low chroma colors, landscape position, and presence of hydrophytes.

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/04/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 17

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NE 1/4 Section 17, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 2-6%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Saylesville silt loam (ShB) Wd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation, Soil, or Hydrology naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No indicators of hydrology observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 17

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Cornus racemosa</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Lonicera X bella</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. <u>Rhamnus cathartica</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. <u>Ulmus rubra</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>10</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Cornus racemosa</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Monarda fistulosa</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Erigeron strigosus</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
4. <u>Mellilotus alba</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
5. <u>Fragaria virginiana</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Pastinaca sativa</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
7. <u>Poa pratensis</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
8. <u>Solidago altissima</u>	<u>5</u>	<input type="checkbox"/>	<u>FACU</u>	
9. <u>Aster novae-angliae</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
10. <u>Solidago riddellii</u>	<u>3</u>	<input type="checkbox"/>	<u>OBL</u>	
11. <u>Aster pilosus</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>	
12. <u>Aster sagittifolius</u>	<u>2</u>	<input type="checkbox"/>	<u>NI</u>	
	<u>103*</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. <u>Vitis riparia</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>3</u>	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>42</u>	x 2 = <u>84</u>
FAC species <u>22</u>	x 3 = <u>66</u>
FACU species <u>34</u>	x 4 = <u>136</u>
UPL species <u>13</u>	x 5 = <u>65</u>
Column Totals: <u>116</u> (A)	<u>356</u> (B)

Prevalence Index = B/A = 3.1

**Hydrophytic Vegetation Indicators:**

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is >50%

☐ Prevalence Index is >3.0<sup>1</sup>

☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?** Yes ☐ No ☒

Remarks: (include photo number here or on a separate sheet.) \*Other NON-dominant herbs include: Daucus carota (2%) NI, Rosa palustris (2%) OBL, Carex sp. (1%) NI. Old field. Photo 17.



Sampling Point: 17

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 18  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Mundelein silt loam (MzfA) Spd NWI classification: S3/E1K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No.11</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Crayfish Burrows (C8) <b>PHOTO 18</b>
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Seasonal hydrology. Photo 18.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 18

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)					
1. <u>Populus deltoides</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>5</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)					
1. <u>Cornus amomum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>		
2. <u>Rhamnus cathartica</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>		
3. <u>Cornus stolonifera</u>	<u>1</u>	<input type="checkbox"/>	<u>FACW</u>		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>13</u>	= Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)					
1. <u>Poa pratensis</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is $\geq 3.0$ <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Agrostis stolonifera</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>		
3. <u>Fragaria virginiana</u>	<u>20</u>	<input type="checkbox"/>	<u>FACU</u>		
4. <u>Solidago riddellii</u>	<u>15</u>	<input type="checkbox"/>	<u>OBL</u>		
5. <u>Cornus stolonifera</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>		
6. <u>Daucus carota</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>		
7. <u>Solidago gigantea</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
8. <u>Solidago graminifolia</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
9. <u>Anemone canadensis</u>	<u>1</u>	<input type="checkbox"/>	<u>FACW</u>		
10. <u>Monarda fistulosa</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>		
11. <u>Rhamnus cathartica</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>		
12. <u>Rudbeckia hirta</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>		
	<u>139*</u>	= Total Cover			
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)					
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: (include photo number here or on a separate sheet.) *Other NON-dominant herbs include: <i>Vitis riparia</i> (1%) FACW. Fresh (wet) meadow. Photo 19.					





# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 19  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 2-6% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Saylesville silt loam (ShB) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, optional Wetland Site ID: _____	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: **19**

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Prunus serotina</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	<u>3</u>	= Total Cover	

  

Sapling/Shrub Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cornus amomum</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
2. <u>Cornus racemosa</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>
3. <u>Rhamnus cathartica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>
4. <u>Cornus stolonifera</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>
5. <u>Lonicera X bella</u>	<u>3</u>	<input type="checkbox"/>	<u>NI</u>
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	<u>48</u>	= Total Cover	

  

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Poa pratensis</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FAC</u>
2. <u>Melilotus abla</u>	<u>25</u>	<input type="checkbox"/>	<u>FACU</u>
3. <u>Cornus racemosa</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>
4. <u>Monarda fistulosa</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>
5. <u>Solidago altissima</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>
6. <u>Agrimonia gryposepela</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>
7. <u>Agrostis stolonifera</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>
8. <u>Anemone cylindrica</u>	<u>2</u>	<input type="checkbox"/>	<u>NI</u>
9. <u>Aster novae-angliae</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>
10. <u>Parthenocissus quinquefolia</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>
11. <u>Rudbeckia hirta</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>
12. _____	_____	<input type="checkbox"/>	_____
	<u>147</u>	= Total Cover	

  

Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	<input type="checkbox"/>	_____
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
	<u>0</u>	= Total Cover	

  

Remarks: (include photo number here or on a separate sheet.) Old field with scattered shrubs. Photo 20.

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____
Prevalence Index = B/A = _____	

**Hydrophytic Vegetation Indicators:**

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is >3.0<sup>1</sup>
- ☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic**
**Vegetation**
**Present?**

 Yes ☒

 No ☐



## SOIL

Sampling Point: 19

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

## Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

Remarks: Upland soils present.

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 20  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace (floodplain) Local relief (concave, convex, none): none  
 Slope (%): nearly level Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Wet alluvial land (Ww) NWI classification: S3/E1K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 11</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soils saturated from surface to bottom of pit (20"). Professional judgement used in determination of indicator A3. Saturation. Assumption made that the water table is present below 20". Sample site is located in a mapped floodway.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 20

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Salix exigua</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≈3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sagittaria latifolia</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>	
3. <u>Lemna minor</u>	<u>1</u>	<input type="checkbox"/>	<u>OBL</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>103</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow and willow thicket. Photo 21.				



Sampling Point: 20

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☒ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 21  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): toe of hillslope Local relief (concave, convex, none): slightly convex  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: T3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators (minimum of one is required; check all that apply)</b>		<b>Secondary Indicators (minimum of two required)</b>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 21

	Absolute % Cover	Dominant Species?	Indicator Status																																	
<b>Tree Stratum</b> (Plot size: 30' radius)																																				
1. <u>Juglans nigra</u>	75	<input checked="" type="checkbox"/>	NI	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																																
2. _____	_____	<input type="checkbox"/>	_____																																	
3. _____	_____	<input type="checkbox"/>	_____																																	
4. _____	_____	<input type="checkbox"/>	_____																																	
5. _____	_____	<input type="checkbox"/>	_____																																	
6. _____	_____	<input type="checkbox"/>	_____																																	
7. _____	_____	<input type="checkbox"/>	_____																																	
	75	= Total Cover																																		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)																																				
1. <u>Rubus occidentalis</u>	15	<input checked="" type="checkbox"/>	NI	<b>Prevalence Index worksheet:</b> <table border="0"> <tr> <td colspan="2">Total % Cover of:</td> <td colspan="2">Multiply by:</td> </tr> <tr> <td>OBL species</td> <td><u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species</td> <td><u>42</u></td> <td>x 2 =</td> <td><u>84</u></td> </tr> <tr> <td>FAC species</td> <td><u>68</u></td> <td>x 3 =</td> <td><u>204</u></td> </tr> <tr> <td>FACU species</td> <td><u>0</u></td> <td>x 4 =</td> <td><u>0</u></td> </tr> <tr> <td>UPL species</td> <td><u>115</u></td> <td>x 5 =</td> <td><u>575</u></td> </tr> <tr> <td>Column Totals:</td> <td><u>225</u></td> <td>(A)</td> <td><u>863</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>3.8</u></td> </tr> </table>	Total % Cover of:		Multiply by:		OBL species	<u>0</u>	x 1 =	<u>0</u>	FACW species	<u>42</u>	x 2 =	<u>84</u>	FAC species	<u>68</u>	x 3 =	<u>204</u>	FACU species	<u>0</u>	x 4 =	<u>0</u>	UPL species	<u>115</u>	x 5 =	<u>575</u>	Column Totals:	<u>225</u>	(A)	<u>863</u> (B)	Prevalence Index = B/A = <u>3.8</u>			
Total % Cover of:		Multiply by:																																		
OBL species	<u>0</u>	x 1 =	<u>0</u>																																	
FACW species	<u>42</u>	x 2 =	<u>84</u>																																	
FAC species	<u>68</u>	x 3 =	<u>204</u>																																	
FACU species	<u>0</u>	x 4 =	<u>0</u>																																	
UPL species	<u>115</u>	x 5 =	<u>575</u>																																	
Column Totals:	<u>225</u>	(A)	<u>863</u> (B)																																	
Prevalence Index = B/A = <u>3.8</u>																																				
2. <u>Juglans nigra</u>	10	<input checked="" type="checkbox"/>	NI																																	
3. <u>Lonicera X bella</u>	10	<input checked="" type="checkbox"/>	NI																																	
4. <u>Fraxinus pennsylvancia</u>	4	<input type="checkbox"/>	FACW																																	
5. _____	_____	<input type="checkbox"/>	_____																																	
6. _____	_____	<input type="checkbox"/>	_____																																	
7. _____	_____	<input type="checkbox"/>	_____																																	
	39	= Total Cover																																		
<b>Herb Stratum</b> (Plot size: 5' radius)																																				
1. <u>Agrostis stolonifera</u>	25	<input checked="" type="checkbox"/>	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																
2. <u>Poa pratensis</u>	25	<input checked="" type="checkbox"/>	FAC																																	
3. <u>Carex blanda</u>	20	<input checked="" type="checkbox"/>	FAC																																	
4. <u>Geum canadense</u>	10	<input type="checkbox"/>	FAC																																	
5. <u>Solidago gigantea</u>	6	<input type="checkbox"/>	FACW																																	
6. <u>Cryptotaenia canadensis?</u>	5	<input type="checkbox"/>	FAC																																	
7. <u>Lactuca seriola</u>	5	<input type="checkbox"/>	FAC																																	
8. <u>Plantago major</u>	3	<input type="checkbox"/>	FAC																																	
9. <u>Zanthoxylum americanum</u>	3	<input type="checkbox"/>	NI																																	
10. <u>Aster lateriflorus</u>	2	<input type="checkbox"/>	FACW																																	
11. <u>Daucus carota</u>	2	<input type="checkbox"/>	NI																																	
12. _____	_____	<input type="checkbox"/>	_____																																	
	106	= Total Cover																																		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)																																				
1. <u>Vitis riparia</u>	5	<input checked="" type="checkbox"/>	FACW	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height																																
2. _____	_____	<input type="checkbox"/>	_____																																	
3. _____	_____	<input type="checkbox"/>	_____																																	
4. _____	_____	<input type="checkbox"/>	_____																																	
	5	= Total Cover																																		
<b>Hydrophytic Vegetation Present?</b>				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																
Remarks: (include photo number here or on a separate sheet.) Hardwoods with scattered stands of fresh (wet) meadow. Photo 22.																																				



Sampling Point: 21

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains		<sup>2</sup> Location: PL=Pore Lining, M=Matrix	
<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> )	<input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR K, L, MLRA 149B</b> )	<input type="checkbox"/> Coast Prairie Redox (A16) ( <b>LLR K, L, R</b> )
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) ( <b>LLR K, L, R</b> )	<input type="checkbox"/> Dark Surface (S7) ( <b>LRR K, L</b> )
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )	<input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR K, L</b> )	<input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR K, L</b> )
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR K, L, R</b> )	<input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 149B</b> )
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	<input type="checkbox"/> Other (Explain in Remarks)
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			
<input type="checkbox"/> Sandy Redox (S5)			
<input type="checkbox"/> Stripped Matrix (S6)			
<input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )			

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 22  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): toe of hillslope-terrace Local relief (concave, convex, none): slightly convex to none  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: T3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 11</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Problematic vegetation in sample area - Rhamnus cathartica (FACU) dominated wetland. (Morphological Adaptations worksheet and Problematic Hydrophytic Vegetation worksheet attached.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Other indicators of hydrology include morphological adaptations, 100% of Rhamnus cathartica contain shallow roots and/or buttressing.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 22

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
1. <u>Juglans nigra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. <u>Populus tremuloides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>40</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Lonicera mackii</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>57</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Pilea pumula</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Lonicera mackii</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>	
4. <u>Bidens vulgata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Geum canadense</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Polygonum virginianum</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
7. <u>Parthenocissus quinquefolia</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>93</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. <u>Vitis riparia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>15</u>	= Total Cover		
<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>42</u> x 2 = <u>84</u> FAC species <u>27</u> x 3 = <u>81</u> FACU species <u>101</u> x 4 = <u>404</u> UPL species <u>35</u> x 5 = <u>175</u> Column Totals: <u>205</u> (A) <u>744</u> (B) Prevalence Index = B/A = <u>3.6</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input checked="" type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (include photo number here or on a separate sheet.) Problematic Vegetation - Buckthorn thicket. 100% of Rhamnus cathartica show morphological adaptations (shallow roots and/or buttressing). See the following Morphological Adaptations and Problematic Hydrophytic Vegetation Worksheets. Photo 23.				



**VEGETATION – Use scientific names of plants. MORPHOLOGICAL ADAPTATIONS WORKSHEET**

 Sampling Point: 22

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Juglans nigra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B)
2. <u>Populus tremuloides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>40</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Lonicera mackii</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>57</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input checked="" type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Pilea pumula</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Lonicera mackii</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>	
4. <u>Bidens vulgata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Geum canadense</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Polygonum virginianum</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
7. <u>Parthenocissus quinquefolia</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>93</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. <u>Vitis riparia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>15</u>	= Total Cover		
				<b>Hydrophytic Vegetation</b> Present?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here, or on a separate sheet.) Buckthorn thicket. 100% of Rhamnus cathartica show morphological adaptations (shallow roots and buttressing). Indicators of hydrology and soils are present. Photos 24 and 25.				

**VEGETATION – Use scientific names of plants. PROBLEMATIC HYDROPHYTIC VEGETATION WORKSHEET**

 Sampling Point: 22

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. <u>Juglans nigra</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. <u>Populus tremuloides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>40</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input type="checkbox"/>	<u>FACU</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Lonicera mackii</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
3. <u>Fraxinus pennsylvanica</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>57</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Rhamnus cathartica</u>	<u>50</u>	<input type="checkbox"/>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Pilea pumula</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Lonicera mackii</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>	
4. <u>Bidens vulgata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
5. <u>Geum canadense</u>	<u>5</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Polygonum virginianum</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
7. <u>Parthenocissus quinquefolia</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>93</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. <u>Vitis riparia</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>15</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Buckthorn thicket. Rhamnus cathartica is listed as a FACU species that commonly dominates disturbed wetlands. Indicators of hydrology and soils are present.				

Sampling Point: 22

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

Restrictive Layer (if observed):

Hydric Soil Present? Yes ☒ No ☐

Remarks:



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 23  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex  
 Slope (%): 6-12%, eroded Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Hochheim loam (HmC2) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Dactylis glomerata</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Bromus inermis</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. <u>Cornus racemosa</u>	<u>15</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Setaria glauca</u>	<u>12</u>	<input type="checkbox"/>	<u>FAC</u>	
5. <u>Festuca elatior</u>	<u>10</u>	<input type="checkbox"/>	<u>FACU</u>	
6. <u>Daucus carota</u>	<u>3</u>	<input type="checkbox"/>	<u>NI</u>	
7. <u>Phleum pratense</u>	<u>3</u>	<input type="checkbox"/>	<u>FACU</u>	
8. <u>Agropyron repens</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>103</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Upland field. Photo 26.				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Sampling Point: 23

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains		Location: PL=Pore Lining, M=Matrix	
<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)		<input type="checkbox"/> Coast Prairie Redox (A16) (LLR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Glacial till material

Depth (inches): 9

Hydric Soil Present? Yes ☐ No ☒

Remarks: Upland soils.
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# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/08/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 24  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 11</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities (plowing and herbicide use).	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>11</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 24

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Cyperus esculentus</u>	<u>67</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is $\approx 3.0$ <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Setaria glauca</u>	<u>6</u>	<input type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>73</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Photo 27.				

## SOIL

Sampling Point: 24

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalve Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soil is regularly plowed.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/08/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 25  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 12</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days (rain is starting to fall during data collection). Disturbed vegetation and soils due to agricultural land management activities.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>15</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0* (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Soils saturated at the surface (may partially be attributed to current weather conditions).			

**VEGETATION** – Use scientific names of plants.

Sampling Point: 25

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Zea mays</u> (harvested)	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of Zea mays. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 28.				

Sampling Point: 25

Northcentral and Northeast Region – Interim Version



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 26  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Matherton silt loam (MmA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 12</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>19</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 10 out of 10 years with wet signatures. Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 26

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of Glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 29.				

Sampling Point: 26

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LLR K, L)  
☐ Thin Dark Surface (S9) (LLR K, L)  
☐ Iron-Manganese Masses (F12) (LLR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: dolomite bedrock ?

Depth (inches): 22

Hydric Soil Present? Yes ☒ No ☐

Remarks: Dolomite rocks starting at 19.5". Soil is regularly plowed.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 27  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 0-2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Sebewa silt loam (Sm) Pd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 12</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 10 out of 10 years with wet signatures. Soils saturated from the surface to bottom of pit at 23". Professional judgement used in determination of A3. Saturation. Assumption made that the water table is present below 23". In addition, a clay lense (restrictive layer) is observed at 13".		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 27

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of Glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 30.				

## Sampling Point: 27

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LLR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LLR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐Type: Clay

Depth (inches): 13"

Remarks: Soil is regularly plowed.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 28  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 2-6% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Hochheim loam (HmB2) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 28

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b>				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 31.				

Sampling Point: 28

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soil is regularly plowed. Upland soils present.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 11/15/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 29

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SW 1/4 Section 8, T6n, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 2-6%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Casco loam (CeB)

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 13</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>17</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0 (at surface)</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 10 out of 10 years with wet signatures. Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 29

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Glycine max</u> (harvested)	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b> <span style="margin-left: 20px;">Yes <input type="checkbox"/></span> <span style="margin-left: 20px;">No <input checked="" type="checkbox"/></span>				
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of Glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 32.				

## SOIL

Sampling Point: 29

[illegible]



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 30  
 Investigator(s): Donald M. Reed, PhD, SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex  
 Slope (%): 6-12% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Hochheim loam (HmC2) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1)  <input type="checkbox"/> High Water Table (A2)  <input type="checkbox"/> Saturation (A3)  <input type="checkbox"/> Water marks (B1)  <input type="checkbox"/> Sediment Deposits (B2)  <input type="checkbox"/> Drift Deposits (B3)  <input type="checkbox"/> Algal Mat or Crust (B4)  <input type="checkbox"/> Iron Deposits (B5)  <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)         </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9)  <input type="checkbox"/> Aquatic Fauna (B13)  <input type="checkbox"/> Marl Deposits (B15)  <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)  <input type="checkbox"/> Presence of Reduced Iron (C4)  <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)  <input type="checkbox"/> Thin Muck Surface (C7)  <input type="checkbox"/> Other (Explain in Remarks)         </div> </div>	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No hydrology indicators observed.	

**VEGETATION** – Use scientific names of plants.

Sampling Point: 30

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≈3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 33.				

Sampling Point: 30

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LLR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☐ No ☒

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Remarks: Soil is regularly plowed. Upland soils present.



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 11/15/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 31

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SW 1/4 Section 7, T6N, R19E

Landform (hillslope, terrace, etc.): drainageway

Local relief (concave, convex, none): concave

Slope (%): 1-4%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Lamartine silt loam (LmB) Spd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation ☒, Soil ☒, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

☐ Yes

☒ No

Hydric Soils Present?

☒ Yes

☐ No

Wetland Hydrology Present?

☒ Yes

☐ No

Is the Sampled Area  
within a Wetland?

☒ Yes

☐ No

If yes, optional Wetland Site ID: PCA No. 13

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.

PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.

### HYDROLOGY

#### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐

Surface Water (A1)

☐

High Water Table (A2)

☒

Saturation (A3)

☐

Water marks (B1)

☐

Sediment Deposits (B2)

☐

Drift Deposits (B3)

☐

Algal Mat or Crust (B4)

☐

Iron Deposits (B5)

☒

Inundation Visible on Aerial Imagery (B7)

☐

Sparsely Vegetated Concave Surface (B8)

☐

Water-Stained Leaves (B9)

☐

Aquatic Fauna (B13)

☐

Marl Deposits (B15)

☐

Hydrogen Sulfide Odor (C1)

☐

Oxidized Rhizospheres on Living Roots (C3)

☐

Presence of Reduced Iron (C4)

☐

Recent Iron Reduction in Tilled Soils (C6)

☐

Thin Muck Surface (C7)

☐

Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

☐

Surface Soil Cracks (B6)

☐

Drainage Patterns (B10)

☐

Moss Trim Lines (B16)

☒

Dry-Season Water Table (C2)

☐

Crayfish Burrows (C8)

☐

Saturation Visible on Aerial Imagery (C9)

☐

Stunted or Stressed Plants (D1)

☒

Geomorphic Position (D2)

☐

Shallow Aquitard (D3)

☐

Microtopographic Relief (D4)

☐

FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Water Table Present?

Yes ☒

No ☐

Depth (inches): 17.5

Saturation Present?  
(includes capillary fringe)

Yes ☒

No ☐

Depth (inches): 6

Wetland Hydrology Present?

Yes ☒

No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample site located within a drainage swale. NRCS slide review shows 10 out of 10 years with wet signatures.

**VEGETATION** – Use scientific names of plants.

Sampling Point: 31

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: right;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td style="text-align: right;">x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td style="text-align: right;">x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td style="text-align: right;">x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td style="text-align: right;">x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td style="text-align: right;">x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td style="text-align: right;">(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>†</sup> <input type="checkbox"/> Morphological Adaptations <sup>†</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>†</sup> (Explain)  <sup>†</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
5. _____	_____	<input type="checkbox"/>	_____																	
6. _____	_____	<input type="checkbox"/>	_____																	
7. _____	_____	<input type="checkbox"/>	_____																	
8. _____	_____	<input type="checkbox"/>	_____																	
9. _____	_____	<input type="checkbox"/>	_____																	
10. _____	_____	<input type="checkbox"/>	_____																	
11. _____	_____	<input type="checkbox"/>	_____																	
12. _____	_____	<input type="checkbox"/>	_____																	
	<u>50</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height																
1. _____	_____	<input type="checkbox"/>	_____																	
2. _____	_____	<input type="checkbox"/>	_____																	
3. _____	_____	<input type="checkbox"/>	_____																	
4. _____	_____	<input type="checkbox"/>	_____																	
	<u>0</u>	= Total Cover																		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 34.																				

Sampling Point: 31

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains		Location: PL=Pore Lining, M=Matrix	
<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LLR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LLR K, L, R) <input type="checkbox"/> Dark Surface (S7) (LRR K, L) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)	

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soil is regularly plowed.



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 32  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace/drainageway Local relief (concave, convex, none): none/concave  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Matherton silt loam (MmA) NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 13</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1)  <input type="checkbox"/> High Water Table (A2)  <input checked="" type="checkbox"/> Saturation (A3)  <input type="checkbox"/> Water marks (B1)  <input type="checkbox"/> Sediment Deposits (B2)  <input type="checkbox"/> Drift Deposits (B3)  <input type="checkbox"/> Algal Mat or Crust (B4)  <input type="checkbox"/> Iron Deposits (B5)  <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)         </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9)  <input type="checkbox"/> Aquatic Fauna (B13)  <input type="checkbox"/> Marl Deposits (B15)  <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)  <input type="checkbox"/> Presence of Reduced Iron (C4)  <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)  <input type="checkbox"/> Thin Muck Surface (C7)  <input type="checkbox"/> Other (Explain in Remarks)         </div> </div>	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks: Sample site is located within a drainage swale. NRCS slide review shows 10 out of 10 years with wet signatures.	

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 32

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 35.				

Sampling Point: 32

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soil is regularly plowed.



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 11/15/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 33

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SW 1/4 Section 8, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 2-6%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Casco sandy loam (CeB) Wd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation, Soil, or Hydrology significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation, Soil, or Hydrology naturally problematic?

(If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

☐ Yes

☒ No

Hydric Soils Present?

☐ Yes

☒ No

Wetland Hydrology Present?

☐ Yes

☒ No

Is the Sampled Area  
within a Wetland?

☐ Yes

☒ No

If yes, optional Wetland Site ID: \_\_\_\_\_

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.

PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.

### HYDROLOGY

#### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐

Surface Water (A1)

☐

High Water Table (A2)

☐

Saturation (A3)

☐

Water marks (B1)

☐

Sediment Deposits (B2)

☐

Drift Deposits (B3)

☐

Algal Mat or Crust (B4)

☐

Iron Deposits (B5)

☐

Inundation Visible on Aerial Imagery (B7)

☐

Sparsely Vegetated Concave Surface (B8)

☐

Water-Stained Leaves (B9)

☐

Aquatic Fauna (B13)

☐

Marl Deposits (B15)

☐

Hydrogen Sulfide Odor (C1)

☐

Oxidized Rhizospheres on Living Roots (C3)

☐

Presence of Reduced Iron (C4)

☐

Recent Iron Reduction in Tilled Soils (C6)

☐

Thin Muck Surface (C7)

☐

Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

☐

Surface Soil Cracks (B6)

☐

Drainage Patterns (B10)

☐

Moss Trim Lines (B16)

☐

Dry-Season Water Table (C2)

☐

Crayfish Burrows (C8)

☐

Saturation Visible on Aerial Imagery (C9)

☐

Stunted or Stressed Plants (D1)

☐

Geomorphic Position (D2)

☐

Shallow Aquitard (D3)

☐

Microtopographic Relief (D4)

☐

FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Water Table Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Saturation Present?  
(includes capillary fringe)

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Wetland Hydrology Present?

Yes ☐

No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed.

**VEGETATION** – Use scientific names of plants.

Sampling Point: 33

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b>  <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species        _____ x 1 = _____ FACW species      _____ x 2 = _____ FAC species        _____ x 3 = _____ FACU species      _____ x 4 = _____ UPL species        _____ x 5 = _____ Column Totals:    _____ (A)        _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation</b> Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 36.				

## Sampling Point: 33

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, **MLRA 149B**)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)  
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Depth (inches): 16

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soil is regularly plowed. Upland soils present.



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 34  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SW 1/4 Section 8, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 0-2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Warsaw loam (WeA) Wd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 13</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1)  <input type="checkbox"/> High Water Table (A2)  <input checked="" type="checkbox"/> Saturation (A3)  <input type="checkbox"/> Water marks (B1)  <input type="checkbox"/> Sediment Deposits (B2)  <input type="checkbox"/> Drift Deposits (B3)  <input type="checkbox"/> Algal Mat or Crust (B4)  <input type="checkbox"/> Iron Deposits (B5)  <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)         </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9)  <input type="checkbox"/> Aquatic Fauna (B13)  <input type="checkbox"/> Marl Deposits (B15)  <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)  <input type="checkbox"/> Presence of Reduced Iron (C4)  <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)  <input type="checkbox"/> Thin Muck Surface (C7)  <input type="checkbox"/> Other (Explain in Remarks)         </div> </div>	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>21</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Soils saturated at the surface.	

**VEGETATION** – Use scientific names of plants.

Sampling Point: 34

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <i>Phalaris arundinacea</i> (cut)	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Setaria glauca</i> (cut)	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>102</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Recently cut fresh (wet) meadow. Photo 37.				

## Sampling Point: 34

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐Hydric Soil Present? Yes ☒ No ☐

Remarks: Wetland soils present due to low chromas with redox beginning at 10", landscape position, soil saturation, and predominance of hydrophytes. Soils are cultivated in dry years.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 35  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (Includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 35

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5'</u> radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 38.				

## SOIL

Sampling Point: 35

[illegible]



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 36  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Matherton silt loam (MmA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation, Soil, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 13</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Sample taken just inside wetland boundary. Temperature conditions more mild than usual for this time of year.  PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 10 out of 10 years with wet signatures. In conversation with the farmer, he indicated that this area and several other areas in ag field were wet.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 36

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≈3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Glycine max</u> (harvested)	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 39.				

Sampling Point: 36

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- B) ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): \_\_\_\_\_

Remarks: Soil is regularly plowed.
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# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/15/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 37  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Matherton silt loam (MmA) Spd NWI classification: F0Kf  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 13</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>14.5</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review indicates that this area has 10 out of 10 years with wet signatures.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 37

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b>  <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Glycine max (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b>				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of glycine max. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 40.				

Sampling Point: 37

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

- ### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): \_\_\_\_\_

Remarks: Soil is regularly plowed.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 38  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace/floodplain Local relief (concave, convex, none): none  
 Slope (%): nearly level Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Wet alluvial land (Ww) NWI classification: E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 15</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Other indicators of hydrology are: Sample area is located in a mapped floodway.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 38

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Cornus stolonifera</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Salix exigua</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>9</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Iris virginica</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
2. <u>Carex lacustris</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
3. <u>Scirpus atrovirens</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
4. <u>Typha angustifolia</u>	<u>15</u>	<input type="checkbox"/>	<u>OBL</u>	
5. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
6. <u>Aster simplex</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
7. <u>Carex trichocarpa</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
8. <u>Eupatorium maculatum</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
9. <u>Scirpus validus</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
10. <u>Equisetum fluviatile</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>112</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. <u>Vitis riparia</u>	<u>6</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>6</u>	= Total Cover		
<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (include photo number here or on a separate sheet.) Shallow marsh and sedge meadow. Photo 41.				

## SOIL

Sampling Point: 38

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☒ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/30/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 39

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SE 1/4 Section 7, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): none

Slope (%): 0-2%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Sebewa silt loam (Sm) Pd

NWI classification: T3/E2K

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☐ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

☐ Yes

☒ No

Hydric Soils Present?

☐ Yes

☒ No

Wetland Hydrology Present?

☐ Yes

☒ No

Is the Sampled Area  
within a Wetland?

☐ Yes

☒ No

If yes, optional Wetland Site ID: \_\_\_\_\_

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.

### HYDROLOGY

#### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐

Surface Water (A1)

☐

High Water Table (A2)

☐

Saturation (A3)

☐

Water marks (B1)

☐

Sediment Deposits (B2)

☐

Drift Deposits (B3)

☐

Algal Mat or Crust (B4)

☐

Iron Deposits (B5)

☐

Inundation Visible on Aerial Imagery (B7)

☐

Sparsely Vegetated Concave Surface (B8)

☐

Water-Stained Leaves (B9)

☐

Aquatic Fauna (B13)

☐

Marl Deposits (B15)

☐

Hydrogen Sulfide Odor (C1)

☐

Oxidized Rhizospheres on Living Roots (C3)

☐

Presence of Reduced Iron (C4)

☐

Recent Iron Reduction in Tilled Soils (C6)

☐

Thin Muck Surface (C7)

☐

Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

☐

Surface Soil Cracks (B6)

☐

Drainage Patterns (B10)

☐

Moss Trim Lines (B16)

☐

Dry-Season Water Table (C2)

☐

Crayfish Burrows (C8)

☐

Saturation Visible on Aerial Imagery (C9)

☐

Stunted or Stressed Plants (D1)

☐

Geomorphic Position (D2)

☐

Shallow Aquitard (D3)

☐

Microtopographic Relief (D4)

☐

FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Water Table Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Saturation Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐

No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology indicators observed.

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: 30' radius)					
1. <u>Populus tremuloides</u>	50	<input checked="" type="checkbox"/>	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)	
2. <u>Picea abies</u> (planted)	10	<input type="checkbox"/>	NI		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	60	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)					
1. <u>Lonicera X bella</u>	33	<input checked="" type="checkbox"/>	NI		
2. <u>Rhamnus cathartica</u>	25	<input checked="" type="checkbox"/>	FACU		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____	_____	<input type="checkbox"/>	_____		
	58	= Total Cover			
<b>Herb Stratum</b> (Plot size: 5' radius)					
1. <u>Aster sagittifolius</u>	10	<input checked="" type="checkbox"/>	NI		
2. <u>Lonicera X bella</u>	10	<input checked="" type="checkbox"/>	NI		
3. <u>Parthenocissus quinquefolia</u>	5	<input type="checkbox"/>	FACU		
4. <u>Rhamnus cathartica</u>	5	<input type="checkbox"/>	FACU		
5. <u>Acer negundo</u>	2	<input type="checkbox"/>	FACW		
6. <u>Geum canadense</u>	1	<input type="checkbox"/>	FAC	<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height	
7. _____	_____	<input type="checkbox"/>	_____		
8. _____	_____	<input type="checkbox"/>	_____		
9. _____	_____	<input type="checkbox"/>	_____		
10. _____	_____	<input type="checkbox"/>	_____		
11. _____	_____	<input type="checkbox"/>	_____		
12. _____	_____	<input type="checkbox"/>	_____		
	33	= Total Cover			
<b>Woody Vine Stratum</b> (Plot size: 30' radius)					
1. _____	_____	<input type="checkbox"/>	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	0	= Total Cover			
Remarks: (include photo number here or on a separate sheet.) Upland thicket and hardwoods. Photo 42.					

## SOIL

Sampling Point: 39

[illegible]



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 40  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): nearly level Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Wet alluvial land (Ww) NWI classification: T3/E2K  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 16</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>9</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u> (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 40

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: 30' radius)					
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b>  Total % Cover of: _____ Multiply by: _____  OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)					
1. <u>Cornus stolonifera</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>		
2. <u>Salix discolor</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FACW</u>		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>8</u>	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Herb Stratum</b> (Plot size: 5' radius)					
1. <u>Carex stricta</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>OBL</u>		
2. <u>Calamagrostis canadensis</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>OBL</u>		
3. <u>Phalaris arundinacea</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>		
4. <u>Eupatorium perfoliatum</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>		
5. <u>Carex trichocarpa</u>	<u>3</u>	<input type="checkbox"/>	<u>OBL</u>		
6. <u>Cornus stolonifera</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
7. _____	_____	<input type="checkbox"/>	_____		
8. _____	_____	<input type="checkbox"/>	_____		
9. _____	_____	<input type="checkbox"/>	_____		
10. _____	_____	<input type="checkbox"/>	_____		
11. _____	_____	<input type="checkbox"/>	_____		
12. _____	_____	<input type="checkbox"/>	_____		
	<u>114</u>	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height	
<b>Woody Vine Stratum</b> (Plot size: 30' radius)					
1. _____	_____	<input type="checkbox"/>	_____		
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	<u>0</u>	= Total Cover			
Remarks: (include photo number here or on a separate sheet.) Sedge meadow. Photo 43.					

**Hydrophytic Vegetation Present?**      Yes ☒      No ☐

Sampling Point: 40

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- B) ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>31</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐Hydric Soil Present? Yes ☒ No ☐



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 09/06/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 41

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SE 1/4 Section 7, T6N, R19E

Landform (hillslope, terrace, etc.): constructed pond

Local relief (concave, convex, none): concave

Slope (%): nearly level

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Wet alluvial land (Ww)

NWI classification: W0Hx

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 16</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Constructed pond with shallow marsh along the edge.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>9</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Constructed pond.		

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Eleocharis erythropoda</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
2. <u>Lemna minor</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
3. <u>Blue green algae (75%)</u>	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
<u>30</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
<u>0</u> = Total Cover				
Remarks: (include photo number here or on a separate sheet.) Other herbs just outside sample area include: Typha angustifolia, Scirpus validus, Sagittaria latifolia, Cicuta bulbifera, and Bidens cernua. Constructed pond with shallow marsh along the edge. Photo 44.				

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?**      Yes ☒      No ☐

Sampling Point: 41

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)  
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)  
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)  
☐ Dark Surface (S7) (**LRR K, L**)  
☐ Polyvalue Below Surface (S8) (**LRR K, L**)  
☐ Thin Dark Surface (S9) (**LRR K, L**)  
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)  
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☒ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): \_\_\_\_\_

Remarks: Constructed pond with mucky/gravel bottom. Soils inundated with 9" of water - hydric by definition (Criteria 3).



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 09/06/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 42  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 0-2% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Colwood silt loam (Cw) Pd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed soils due to nursery land management activities.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 42

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: 30' radius)					
1. <u>Gleditsia triacanthos</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>8</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)	
2. <u>Populus deltoides</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
3. <u>Picea pungens</u>	<u>3</u>	<input type="checkbox"/>	<u>NI</u>		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>38</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)					
1. <u>Rhamnus cathartica</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>		
2. <u>Lonicera x bella</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>NI</u>		
3. <u>Morus alba</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
4. _____	_____	<input type="checkbox"/>	_____		
5. _____	_____	<input type="checkbox"/>	_____		
6. _____	_____	<input type="checkbox"/>	_____		
7. _____	_____	<input type="checkbox"/>	_____		
	<u>10</u>	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Herb Stratum</b> (Plot size: 5' radius)					
1. <u>Poa pratensis</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
2. <u>Setaria glauca</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FAC</u>		
3. <u>Cirsium arvense</u>	<u>20</u>	<input type="checkbox"/>	<u>FACU</u>		
4. <u>Daucus carota</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>		
5. <u>Acer negundo</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
6. <u>Aster simplex</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>		
7. <u>Phalaris arundinacea</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height	
8. <u>Aster pilosus</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>		
9. <u>Dactylis glomerata</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>		
10. <u>Oxalis stricta</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>		
11. <u>Salix nigra</u>	<u>2</u>	<input type="checkbox"/>	<u>OBL</u>		
12. _____	_____	<input type="checkbox"/>	_____		
	<u>117</u>	= Total Cover			
<b>Woody Vine Stratum</b> (Plot size: 30' radius)					
1. <u>Vitis riparia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	_____		
3. _____	_____	<input type="checkbox"/>	_____		
4. _____	_____	<input type="checkbox"/>	_____		
	<u>5</u>	= Total Cover			
Remarks: (include photo number here or on a separate sheet.) Nursery/field. Photo 45.					

Sampling Point: 42

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☐ No ☒

Depth (inches): \_\_\_\_\_

Remarks: Soils have been filled for nursery management activities. Low chroma wetland soils present. Redox appears to be relic.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 09/06/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 43

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: SE 1/4 Section 7, T6N, R19E

Landform (hillslope, terrace, etc.): small drainage way

Local relief (concave, convex, none): concave

Slope (%): 0-2%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Colwood silt loam (Cw) Pd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 17</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

	Absolute % Cover	Dominant Species?	Indicator Status
<b>Tree Stratum</b> (Plot size: 30' radius)			
1. <u>Betula nigra</u> (planted)	2	<input type="checkbox"/>	FACW
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	2	= Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)			
1. <u>Acer saccharinum</u>	3	<input checked="" type="checkbox"/>	FACW
2. <u>Pinus sylvestris</u> (planted)	2	<input checked="" type="checkbox"/>	NI
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
5. _____	_____	<input type="checkbox"/>	_____
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
	5	= Total Cover	
<b>Herb Stratum</b> (Plot size: 5' radius)			
1. <u>Phalaris arundinacea</u>	100	<input checked="" type="checkbox"/>	FACW
2. <u>Agrostis stolonifera</u>	5	<input type="checkbox"/>	FACW
3. <u>Juncus dudleyi</u>	5	<input type="checkbox"/>	FAC
4. <u>Polygonum pensylvanicum</u>	5	<input type="checkbox"/>	FACW
5. <u>Epilobium coloratum</u>	1	<input type="checkbox"/>	OBL
6. _____	_____	<input type="checkbox"/>	_____
7. _____	_____	<input type="checkbox"/>	_____
8. _____	_____	<input type="checkbox"/>	_____
9. _____	_____	<input type="checkbox"/>	_____
10. _____	_____	<input type="checkbox"/>	_____
11. _____	_____	<input type="checkbox"/>	_____
12. _____	_____	<input type="checkbox"/>	_____
	116	= Total Cover	
<b>Woody Vine Stratum</b> (Plot size: 30' radius)			
1. _____	_____	<input type="checkbox"/>	_____
2. _____	_____	<input type="checkbox"/>	_____
3. _____	_____	<input type="checkbox"/>	_____
4. _____	_____	<input type="checkbox"/>	_____
	0	= Total Cover	

**Dominance Test worksheet:**

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____
Prevalence Index = B/A = _____	

**Hydrophytic Vegetation Indicators:**

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is >50%

☐ Prevalence Index is >3.0<sup>1</sup>

☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?** Yes ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 46.

## SOIL

Sampling Point: 43

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

## Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- Indicators for Problematic Hydric Soils :
- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
  - ☐ Coast Prairie Redox (A16) (LLR K, L, R)
  - ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
  - ☐ Dark Surface (S7) (LRR K, L)
  - ☐ Polyvalue Below Surface (S8) (LRR K, L)
  - ☐ Thin Dark Surface (S9) (LRR K, L)
  - ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
  - ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
  - ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
  - ☐ Red Parent Material (TF2)
  - ☐ Very Shallow Dark Surface (TF12)
  - ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/29/2011  
Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 44  
Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 7, T6N, R19E  
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
Soil Map Unit Name: Mundelein silt loam (MzFA) Spd NWI classification: none  
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 19</u>
Remarks: (Explain alternative procedures here or in a separate report.) Normal precipitation for the past 90 days. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>17</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0 (at surface)</u>	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 9 out of 10 years with wet signatures. Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: **44**

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b>  <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Setaria glauca</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is =3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.
2. <u>Solidago graminifolia</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Typha angustifolia</u>	<u>20</u>	<input type="checkbox"/>	<u>OBL</u>	
4. <u>Scirpus atrovirens</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
5. <u>Aster lateriflorus</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
6. <u>Barbarea vulgaris</u>	<u>3</u>	<input type="checkbox"/>	<u>FAC</u>	
7. <u>Erigeron strigosus</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
8. <u>Rumex crispus</u>	<u>2</u>	<input type="checkbox"/>	<u>FAC</u>	
9. <u>Cirsium arvense</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>109</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; justify-content: space-around;"> <span>Yes <input checked="" type="checkbox"/></span> <span>No <input type="checkbox"/></span> </div>
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 47.				

## SOIL

Sampling Point: 44

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	N 2.5/0	100					Clay loam	
9-18	10Y 5/1	100	7.5YR 5/8	c/p	C	M	Clay	
18-22	10Y 5/1	100	10GY 5/1	c/f	D	M	Clay	
			7.5YR 4/6	c/p	C	M		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains<sup>2</sup>Location: PL=Pore Lining, M=Matrix

## Hydric Soil Indicators:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☒ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)  
☐ Loamy Mucky Mineral (F1) (LRR K, L)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/29/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 45  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Mundelein silt loam (MzfA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 20</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0 (at surface)</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: NRCS slide review shows 9 out of 10 years with wet signatures. Soils saturated at the surface.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 45

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b>  <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species        _____ x 1 = _____ FACW species      _____ x 2 = _____ FAC species        _____ x 3 = _____ FACU species      _____ x 4 = _____ UPL species        _____ x 5 = _____ Column Totals:    _____ (A)        _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Zea mays (harvested)</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation</b> Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Problematic vegetation due to a long term managed plant community area consisting of Zea mays. Wetland determination made based on indicators of hydric soils and wetland hydrology. Atypical (farmed) wetland. Photo 48.				

Sampling Point: 45

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): \_\_\_\_\_

Remarks: Soils regularly plowed.
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## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/29/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 46  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 7, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Mundelein silt loam (MzFA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks)  
 Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.	
PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Surface Water (A1)  <input type="checkbox"/> High Water Table (A2)  <input type="checkbox"/> Saturation (A3)  <input type="checkbox"/> Water marks (B1)  <input type="checkbox"/> Sediment Deposits (B2)  <input type="checkbox"/> Drift Deposits (B3)  <input type="checkbox"/> Algal Mat or Crust (B4)  <input type="checkbox"/> Iron Deposits (B5)  <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)  <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)         </div> <div style="width: 50%;"> <input type="checkbox"/> Water-Stained Leaves (B9)  <input type="checkbox"/> Aquatic Fauna (B13)  <input type="checkbox"/> Marl Deposits (B15)  <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)  <input type="checkbox"/> Presence of Reduced Iron (C4)  <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)  <input type="checkbox"/> Thin Muck Surface (C7)  <input type="checkbox"/> Other (Explain in Remarks)         </div> </div>	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: No hydrology indicators observed.	

**VEGETATION** – Use scientific names of plants.

Sampling Point: 46

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must Be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. <u>Zea mays</u> (harvested)	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 49.				

Sampling Point: 46

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- B) ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 11/29/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 47

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NE 1/4 Section 7, T6N, R19E

Landform (hillslope, terrace, etc.): terrace

Local relief (concave, convex, none): slightly concave

Slope (%): 1-3%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Kendall silt loam (KIA) Spd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☒ No ☐ (If no, explain in Remarks)

Are Vegetation X, Soil X, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?

☐ Yes

☒ No

Hydric Soils Present?

☐ Yes

☒ No

Wetland Hydrology Present?

☐ Yes

☒ No

Is the Sampled Area  
within a Wetland?

☐ Yes

☒ No

If yes, optional Wetland Site ID: \_\_\_\_\_

Remarks: (Explain alternative procedures here or in a separate report.) Normal precipitation for the past 90 days. Disturbed vegetation and soils due to agricultural land management activities. Temperature conditions more mild than usual for this time of year.

PRELIMINARY DETERMINATION CONDUCTED OUTSIDE GROWING SEASON.

### HYDROLOGY

#### Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐

Surface Water (A1)

☐

High Water Table (A2)

☐

Saturation (A3)

☐

Water marks (B1)

☐

Sediment Deposits (B2)

☐

Drift Deposits (B3)

☐

Algal Mat or Crust (B4)

☐

Iron Deposits (B5)

☐

Inundation Visible on Aerial Imagery (B7)

☐

Sparsely Vegetated Concave Surface (B8)

☐

Water-Stained Leaves (B9)

☐

Aquatic Fauna (B13)

☐

Marl Deposits (B15)

☐

Hydrogen Sulfide Odor (C1)

☐

Oxidized Rhizospheres on Living Roots (C3)

☐

Presence of Reduced Iron (C4)

☐

Recent Iron Reduction in Tilled Soils (C6)

☐

Thin Muck Surface (C7)

☐

Other (Explain in Remarks)

#### Secondary Indicators (minimum of two required)

☐

Surface Soil Cracks (B6)

☐

Drainage Patterns (B10)

☐

Moss Trim Lines (B16)

☐

Dry-Season Water Table (C2)

☐

Crayfish Burrows (C8)

☐

Saturation Visible on Aerial Imagery (C9)

☐

Stunted or Stressed Plants (D1)

☐

Geomorphic Position (D2)

☐

Shallow Aquitard (D3)

☐

Microtopographic Relief (D4)

☐

FAC-Neutral Test (D5)

#### Field Observations:

Surface Water Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Water Table Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

Saturation Present?

Yes ☐

No ☒

Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present?

Yes ☐

No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Sample site slightly depressional. But, no indicators of hydrology observed.

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Zea mays</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>50</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Hydrophytic Vegetation Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Remarks: (include photo number here or on a separate sheet.) Agricultural field. Photo 50.				

Sampling Point: 47

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, **MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☐ No ☒

Depth (inches): \_\_\_\_\_

Remarks: Soil is regularly plowed. Soil profile just misses the A12. indicator. Low chroma wetland soils present.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 11/08/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 48  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: SE 1/4 Section 6, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 1-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Pistakee silt loam (PrA) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation X, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days. Disturbed vegetation due to agricultural land management activities.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Sample site slightly depressional. But, no hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 48

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Dactylis glomerata</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Taraxacum officinale</u>	<u>20</u>	<input type="checkbox"/>	<u>FACU</u>	
3. <u>Trifolium pratense</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>112</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Agricultural field (pasture or hay). Photo 51.				

Sampling Point: 48

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) (**LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☐ No ☒Hydric Soil Present? Yes ☐ No ☒

Remarks: Soils are periodically plowed. Upland soils present.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 08/30/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 49

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NE 1/4 Section 6, T6N, R19E

Landform (hillslope, terrace, etc.): low terrace

Local relief (concave, convex, none): none

Slope (%): 0-2%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Pella silt loam (Ph) Pd

NWI classification: E2H

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 22</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>14</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>0 (at surface)</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soils saturated at the surface.		

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≥3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Typha angustifolia</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	
3. <u>Scirpus atrovirens</u>	<u>10</u>	<input type="checkbox"/>	<u>OBL</u>	
4. <u>Eupatorium maculatum</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
5. <u>Aster puniceus</u>	<u>3</u>	<input type="checkbox"/>	<u>OBL</u>	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>101</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Shallow marsh and fresh (wet) meadow. Photo 52.				

Sampling Point: 49

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- Indicators for Problematic Hydraulic Soils:
- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
  - ☐ Coast Prairie Redox (A16) (LLR K, L, R)
  - B) ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
  - ☐ Dark Surface (S7) (LRR K, L)
  - ☐ Polyvalue Below Surface (S8) (LRR K, L)
  - ☐ Thin Dark Surface (S9) (LRR K, L)
  - ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
  - ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
  - ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
  - ☐ Red Parent Material (TF2)
  - ☐ Very Shallow Dark Surface (TF12)
  - ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): 24

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 08/30/2011  
Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 50  
Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 6, T6N, R19E  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex  
Slope (%): 2-6%, eroded Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
Soil Map Unit Name: Hochheim loam (HmB2) Wd NWI classification: none  
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 50

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. <u>Rhamnus cathartica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>10</u>	= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is >3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Poa pratensis</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. <u>Solidago altissima</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Daucus carota</u>	<u>10</u>	<input type="checkbox"/>	<u>NI</u>	
4. <u>Linaria vulgaris</u>	<u>5</u>	<input type="checkbox"/>	<u>NI</u>	
5. <u>Rhamnus frangula</u>	<u>3</u>	<input type="checkbox"/>	<u>FAC</u>	
6. <u>Agropyron repens</u>	<u>2</u>	<input type="checkbox"/>	<u>FACU</u>	
7. <u>Cirsium arvense</u>	<u>1</u>	<input type="checkbox"/>	<u>FACU</u>	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>141</u>	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Dry fallow field. Photo 53.				
<div style="border: 1px solid black; height: 100px; width: 100%;"></div>				

Sampling Point: 50

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Hystosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LRR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (MLRA 149B)  
☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: Dry soils

Depth (inches): 18

Hydric Soil Present? Yes ☐ No ☒

Remarks: Refusal at 18" due to dry soil conditions. Upland soils.



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 09/06/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 51  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 6, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Wallkill silt loam (Wa) Pd NWI classification: E2H  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☐ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 22</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>20</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Seasonal wetland.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 51

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Prevalence Index worksheet:</b>  <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Poa pratensis</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≈3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Aster lucidulus</u>	<u>10</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Angelica atropurpurea</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
5. <u>Scirpus atrovirens</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
6. <u>Verbena hastata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
7. <u>Agrostis stolonifera</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
8. <u>Solidago gigantea</u>	<u>3</u>	<input type="checkbox"/>	<u>FACW</u>	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>156</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. _____	_____	<input type="checkbox"/>	_____	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 54.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Sampling Point: 51

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10) (LRR K, L, **MLRA 149B**)  
☐ Coast Prairie Redox (A16) (LLR K, L, R)  
☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)  
☐ Dark Surface (S7) (LRR K, L)  
☐ Polyvalue Below Surface (S8) (LLR K, L)  
☐ Thin Dark Surface (S9) (LRR K, L)  
☐ Iron-Manganese Masses (F12) (LRR K, L, R)  
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)  
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Hydric Soil Present? Yes ☒ No ☐

Depth (inches): \_\_\_\_\_



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 09/06/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 52  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NE 1/4 Section 6, T6N, R19E  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none  
 Slope (%): 0-3% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Walkill silt loam (Wa) Pd NWI classification: E2H  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is the Sampled Area within a Wetland? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Only one secondary indicator of hydrology observed.		

**VEGETATION** – Use scientific names of plants.

Sampling Point: 52

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Sapling/Shrub Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: 5' radius)</b>				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Echinocystis lobata</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
3. <u>Solanum dulcamara</u>	<u>1</u>	<input type="checkbox"/>	<u>FAC</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>106</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: 30' radius)</b>				
1. _____	_____	<input type="checkbox"/>	_____	
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>0</u>	= Total Cover		
Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Photo 55.				

**Dominance Test worksheet:**  
 Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)  
  
 Total Number of Dominant Species Across All Strata: 1 (B)  
  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**  

Total % Cover of:	Multiply by:
OBL species _____ x 1 = _____	
FACW species _____ x 2 = _____	
FAC species _____ x 3 = _____	
FACU species _____ x 4 = _____	
UPL species _____ x 5 = _____	
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

**Hydrophytic Vegetation Indicators:**  
☐ Rapid Test for Hydrophytic Vegetation  
☒ Dominance Test is >50%  
☐ Prevalence Index is >3.0<sup>1</sup>  
☐ Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
  
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  
  
**Sapling/shrub** – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height

**Hydrophytic Vegetation Present?**      Yes ☒      No ☐

Sampling Point: 52

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ Loamy Mucky Mineral (F1) (LRR K, L)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☐ No ☒

Remarks: Upland soils.



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass

City/County: City and Town of Waukesha, Waukesha County

Sampling Date: 09/08/2011

Applicant/Owner: \_\_\_\_\_

State: WI

Sampling Point: 53

Investigator(s): Donald M. Reed, PhD., SEWRPC

Section, Township, Range: NE 1/4 Section 6, T6N, R19E

Landform (hillslope, terrace, etc.): Ephemeral pond

Local relief (concave, convex, none): concave

Slope (%): 0-2%

Lat: \_\_\_\_\_

Long: \_\_\_\_\_

Datum: \_\_\_\_\_

Soil Map Unit Name: Pella silt loam (Ph) Pd

NWI classification: none

Are climatic/hydrologic conditions on the site typical for this time of year?

Yes ☐ No ☒ (If no, explain in Remarks)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?

(If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, optional Wetland Site ID: <u>PCA No. 24</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
(includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: 53

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: 30' radius)				
1. <u>Ulmus americana</u>	<u>60</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That are OBL, FACW, or FAC: <u>5</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>83</u> (A/B)
2. <u>Acer negundo</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3. <u>Populus deltoides</u>	<u>20</u>	<input type="checkbox"/>	<u>FAC</u>	
4. _____	_____	<input type="checkbox"/>	_____	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>120</u>	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: 30' radius)				
1. <u>Rhamnus frangula</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <div style="display: flex; justify-content: space-between;"> <span>Total % Cover of:</span> <span>Multiply by:</span> </div> OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Rhamnus cathartica</u>	<u>3</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Ribes americanum</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Ulmus americana</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
	<u>12</u>	= Total Cover		
<b>Herb Stratum</b> (Plot size: 5' radius)				
1. <u>Phalaris arundinacea</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≈3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Carex bebbii</u>	<u>5</u>	<input type="checkbox"/>	<u>OBL</u>	
3. <u>Vitis riparia</u>	<u>5</u>	<input type="checkbox"/>	<u>FACW</u>	
4. <u>Aster lateriflorus</u>	<u>2</u>	<input type="checkbox"/>	<u>FACW</u>	
5. _____	_____	<input type="checkbox"/>	_____	
6. _____	_____	<input type="checkbox"/>	_____	
7. _____	_____	<input type="checkbox"/>	_____	
8. _____	_____	<input type="checkbox"/>	_____	
9. _____	_____	<input type="checkbox"/>	_____	
10. _____	_____	<input type="checkbox"/>	_____	
11. _____	_____	<input type="checkbox"/>	_____	
12. _____	_____	<input type="checkbox"/>	_____	
	<u>37</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: 30' radius)				
1. <u>Vitis riparia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height  <b>Sapling/shrub</b> – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height
2. _____	_____	<input type="checkbox"/>	_____	
3. _____	_____	<input type="checkbox"/>	_____	
4. _____	_____	<input type="checkbox"/>	_____	
	<u>20</u>	= Total Cover		
<b>Hydrophytic Vegetation Present?</b>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (include photo number here or on a separate sheet.) Ephemeral pond with lowland hardwoods. Photo 56.				

Sampling Point: 53

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains      <sup>2</sup>Location: PL=Pore Lining, M=Matrix

Indicators for Problematic Hydric Soils<sup>3</sup>:

- Indicators for Problematic Hydric Soils
- <sup>3</sup>
- :

- ☐ 2 cm Muck (A10) (LRR K, L, **MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (LLR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LLR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of Hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: STH 59 West Bypass City/County: City and Town of Waukesha, Waukesha County Sampling Date: 09/08/2011  
 Applicant/Owner: \_\_\_\_\_ State: WI Sampling Point: 54  
 Investigator(s): Donald M. Reed, PhD., SEWRPC Section, Township, Range: NW 1/4 Section 5, T6N, R19E  
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none  
 Slope (%): 1-4% Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Lamartine silt loam (LmB) Spd NWI classification: none  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If, needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is the Sampled Area within a Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, optional Wetland Site ID: <u>PCA No. 25</u>
Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the past 90 days.	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u>		<u>Secondary Indicators (minimum of two required)</u>
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Water marks (B1) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:		